

Medical Effects of Ionizing Radiation Course

Course Schedule

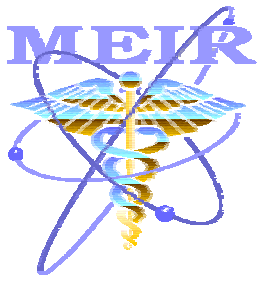
USUHS, Bethesda, MD

August 7 - 10, 2001



7 August 01 (Day 1)

0730 – 0800	Registration	Staff
0800 – 0840	Welcome and Introduction to the Threat <i>Discuss AFRRI's radiological program and introduce the threat.</i>	COL Eng
0840 – 0940	"Ten Seconds That Shook the World" <i>Discuss the development of nuclear energy through the first use of nuclear weapons during wartime.</i>	Film
0950 – 1050	Physical Principles of Ionizing Radiation <i>Describe the process by which radiation interacts with matter.</i>	LT Dawson
1050 – 1130	Psychological Factors of Ionizing Radiation <i>Describe psychological reactions of populations who are exposed to the effects of a nuclear detonation and both real and perceived widespread radionuclide contamination.</i>	LTC Pastel
1130 – 1230	Lunch	
1230 – 1320	Nuclear Weapons, Blast, Thermal, Fallout Effects <i>Explain the effects and hazards of blast and thermal energy and fallout characteristics released from a nuclear detonation.</i>	LTJg Burke
1330 – 1410	Radiation Defense <i>Recall principles and procedures for protection against expected radiological hazards.</i>	Mr. Rob Marte
1410 – 1500	Medical Operations at the Radiological site <i>Identify medical planning factors and responsibilities in response to a medical crisis.</i>	COL Eng
1500 – 1550	Depleted Uranium Effects <i>Discuss concerns with the use of depleted uranium, and current research being conducted on its effects.</i>	Dr. McClain

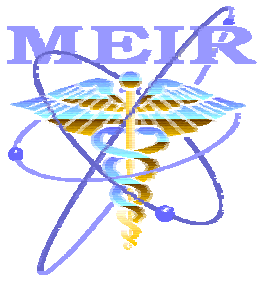


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8 August 01 (Day 2)

0800 – 0930	Acute Radiation Syndrome <i>Recall the underlying causes of radiation sickness. Explain the treatments available for persons affected By radiation sickness and treatments being developed.</i>	COL Jarrett
0940 – 1030	Radioprotectants - Prophylactic Drug Development <i>Discuss development of prophylactic drugs Against expected radiological hazards.</i>	DR. WHITNALL
1040 – 1130	Infectious Complications of Irradiation <i>Discuss basic treatment modalities for post-radiation Infections and the immunocompromised patient.</i>	CDR Brook
1130 – 1230	Lunch	
1230 – 1320	Cellular Radiation Biology <i>Describe the energies released by ionizing Radiation and their effects on biological systems.</i>	Dr. Shoemaker
1320 – 1420	Western Radiation Exposure Experience <i>Recall case histories of operationally significant Radiation incidents involved in the Western Hemisphere.</i>	LTC Salter
1430 – 1550	Soviet Radiation Exposure Experience <i>Describe the major radiation releases in the former Soviet Union and how they uniquely contribute to our Understanding of the effects of radiation on human health.</i>	Dr. Reeves*



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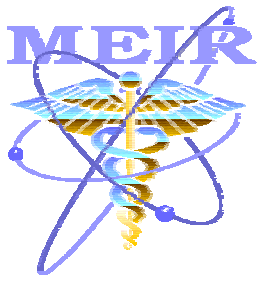
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9 August 01 (Day 3)

0900 – 0950	Reactor Physics <i>Discuss the processes and principles involved With nuclear energy production.</i>	CPT Carter
0950 – 1030	Management of NBC Contaminated Casualties <i>Describe NBC contaminated casualties and protect treatment personnel.</i>	COL Eng
1040 – 1200	"Is Radiation as Bad as They Say?" <i>Discuss the evidence that shows a lack of risk for (and possibly beneficial effects of) low doses of radiation.</i>	Dr. Cameron*
1200 – 1300	Lunch	
1300 – 1400	"Suicide Mission to Chernobyl" <i>Discuss the lessons learned since the Chernobyl accident.</i>	FILM
1400 – 1450	NBC and Combined Radiation/Chemical and Biological Injury <i>Describe the potential for enhanced health risks Associated with ionizing radiation in combination With BW or CW agents.</i>	Dr. Knudson
1500 – 1525	"Pre-Hospital Response to a Radiation Accident" <i>Recall the steps taken before transporting a radiologically contaminated patient to an emergency room.</i>	REAC/TS Film
1525 – 1550	"Emergency Department Response to a Radiation Accident" <i>Recall the steps taken from the time a contaminated patient enters a hospital emergency room until their transfer or release, including wound decontamination and protection of medical personnel.</i>	REAC/TS Film

*Denotes Guest Speaker



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10 August 01 (Day 4)

0800 – 0850	Low Level (Late) Effects of Ionizing Radiation <i>Explain long-term, low-level, and chronic high-dose sub-lethal exposures of ionizing radiation.</i>	Dr. Miller
0850 – 0950	Management of Internal Contamination <i>List the methods for removal of internally deposited radioactive materials in the body.</i>	CAPT Cummings
1000 – 1050	Biodosimetry <i>Describe the use of dicentric yields measured in Human peripheral blood as a radiation biodosimetry.</i>	Dr. Blakely
1100 – 1150	Biodosimetry Assessment Tool Exercise <i>Explain how the Biodosimetry Assessment tool Software program can provide diagnostic information On radiation causalities</i>	Dr. Blakely
1200 – 1300	Lunch (picnic lunch)	AFRRI patio
1300 – 1340	Cytokine-Based Therapies <i>Describe the general concept of Cytokines with Special reference to cytokine therapy for Hematopoietic radiation injury.</i>	Dr. Seed
1350 – 1430	Training Exercise <i>Demonstrates the procedures for managing decontamination, Radiac use, and triage situations.</i>	LTJg Burke & Mr. Marte
1430 – 1520	Discussion Groups Exercise <i>Explain medical management of radiological casualties</i>	CAPT Cummings
1530 – 1610	Course Summation and Critiques/AFRRI Tour	Staff